



## PATENT ABSTRACTS OF JAPAN

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(54) ANALOG INTERFACE LIQUID CRYSTAL  
DISPLAY DEVICE

(57) Abstract:

**PROBLEM TO BE SOLVED:** To satisfactorily display analog data by adjusting an offset level and a gain level while calculating offset and gain levels based on the maximin value and the minimum value of digital display data to convert analog data into proper digital data for display even when analog data whose black levels and amplitudes are different are inputted.

**SOLUTION:** An A/D conversion part 10 adjusts the black level of analog display data 6 according to an offset level 7. The part 10 converts the analog display data 6 into digital display data 11 based on a gain level 8 and a reference low level 9. A liquid crystal controller 20 displays the digital display data 11 on a liquid crystal panel 33. Since the gain and the offset value of an A/D conversion by the A/D conversion part 10 are needed to be adjusted in accordance with the analog display data, the minimum value of the digital data 11 is held in a minimum value storage part 12 and the offset level 7 is adjusted according to the value. Moreover, the maximum value of the data 11 is held in a

maximum value storage part 13 and the gain level 8 is adjusted according to the value.

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